

REMARKS

I. Introduction

The Office Action mailed January 20, 2010, has been carefully considered. The present Amendment is intended to be a complete response thereto and to place the case in condition for allowance.

II. Status of the Claims

Claims 1-12 and 14-20 are pending. Claims 1, 7, and 14 have been cancelled. Support for the claim amendment is found, *inter alia*, in the specification on page 7-9, paragraph [0024].

III. Summary of the Office Action

In the Office Action, the Examiner rejected

- 1) claims 1-3, 5-6, and 8-13 under 35 U.S.C. § 103(a) as being anticipated by Basol (U.S. Patent Application Publication No. 2004/0219730); and
- 2) claims 4, 7, and 14-20 under 35 U.S.C. § 103(a) as being obvious over Basol in view of Kodas et al. (U.S. Patent Application Publication No. 2003/0108644).

IV. Arguments

Applicants respectfully traverse the rejections for the following reasons:

Basol fails to disclose every element of the claimed invention. In particular, Basol fails to disclose that the metal power is conductive “silver, gold, palladium, or platinum,” as recited in independent claims 1, 7 and 14. The Examiner points to paragraph [0041] of Basol to assert that Basol discloses metallic silver because the term “compound” is used by Basol to refer to a “polycrystalline composition.” Office Action, page 5. Applicants respectfully submit that this paragraph discloses that compounds containing silver “may also be formed using the present invention.” Even if the Examiner’s interpretation is accepted, the “compound” referred to by Basol is not conductive. Basol discloses a semiconductor film layer and methods for forming that layer. *See, e.g.*, abstract, and paragraph [0017]. The semiconductor is formed by making a precursor formulation 50 (*see* paragraph [0035]) and heating it to react (anneal) the components of the precursor formulation to form a semiconductor layer (*see* paragraph [0040]). Thus, the silver compound referred to in paragraph [0041] of Basol cannot be considered conductive. The vast difference between conductor and semiconductor is discussed in the previous Amendment.

With regard to the “precursor formulation 50” of Basol, the only conductive metal disclosed is copper particles 65 which react to form the semiconductor. That is not desired with the present invention. Paragraph [0032] on page 11 of the present specification clearly teaches that copper should not be used without plating with gold or silver to prevent reaction (copper oxide formation). That is not disclosed by Basol. In fact, the opposite is true. It is desired that the components used in the precursor formulation 50 of Basol react to form Cu(in,Ga)Se₂, a semiconductor. That is not desired by the present invention. Instead, the metals of the present invention do not react upon heating, but rather sinter to form a conductive interconnect.

Additionally, Basol fails to disclose sintering altogether. The Examiner points to paragraph [0040] of Basol to allege a sintering process. That is clearly missing the point of Basol's teaching. In paragraph [0040], Basol teaches reaction steps (annealing) to form the semiconductor ($\text{Cu}(\text{In},\text{Ga})\text{Se}_2$) from the components of the precursor formulation 50. Those reaction steps do not sinter the components of the precursor formulation 50. The present invention, on the other hand, sinters the conductive metal powder in a paste to form a conductive interconnect. Sintering is a process of fusing the particles below their melting point to form a mass. Thus, the present invention fuses conductive metal powders to form a conductive mass, while the process of Basol reacts (anneals) components of a precursor formulation to form a semiconductor. Those processes are completely different and should not be confused. Therefore, Basol absolutely does not disclose or suggest a sintering process.

Moreover, the combination of Basol with Kodas et al. also fails to render the presently claimed invention obvious. The Examiner relies on Kodas et al. to disclose fish oil as a dispersant. However, because Kodas et al. do not cure the deficiencies of Basol, as discussed above, the combination of the references does not render the present invention obvious within the meaning of 35 U.S.C. § 103.

For the reasons noted, the present invention is not anticipated or obvious over the cited references, taken alone or in combination. Accordingly, Applicants respectfully request withdrawal of the rejections, and the issuance of a Notice of Allowance.

V. Conclusion

Applicants have responded to the Office Action mailed January 20, 2010. All pending claims are now believed to be allowable and favorable action is respectfully requested.

In the event that there are any questions relating to this Amendment or to the application in general, it would be appreciated if the Examiner would telephone the undersigned attorney concerning such questions so that the prosecution of this application may be expedited.

Please charge any shortage or credit any overpayment of fees to BLANK ROME LLP, Deposit Account No. 23-2185 (124617-00118). In the event that a petition for an extension of time is required to be submitted herewith and in the event that a separate petition does not accompany this response, Applicants hereby petition under 37 C.F.R. 1.136(a) for an extension of time for as many months as are required to render this submission timely.

Any fees due are authorized above.

Dated: April 20, 2010

Respectfully submitted,

Electronic signature: /Michael C. Greenbaum/
Michael C. Greenbaum
Registration No.: 28,419
BLANK ROME LLP
Correspondence Customer Number: 27557
Attorney for Applicant